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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,406	07/27/2001	Esther S. Takeuchi	00786.00056	7912

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EXAMINER

KALAFUT, STEPHEN J

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 07/18/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

SN  
Application N .

09/915,406

Applicant(s)

TAKEUCHI, ESTHER S.

Examiner

Stephen J. Kalafut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-24 and 26 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 21 recites the formula  $V_6O_{13}$ , but this does not appear in the present specification, nor in the originally filed disclosure of the parent case, Serial No. 09/75070, nor the grandparent case, Serial No. 09/551,830, nor in the great-grandparent case, Patent No. 6,150,057. While the verbal recitation "vanadium oxide" is present, this would not automatically correspond to the formula  $V_6O_{13}$ . See Uchiyama *et al.* (US 4,751,157) and Kawaguchi *et al.* (US 5,139,901), which disclose vanadium oxide of the formula  $V_2O_5$ ; and Christian *et al.* (US 4,228,226), which discloses vanadium oxides of several different formulas. These were all cited in the IDS of 7/27/01. Claim 26 recites gamma butyrolactone as a component of a mixture of organic solvents for the present electrolyte. While this solvent is present in the specification, and in the parent disclosures, it is disclosed only as a sole solvent, and not in any solvent mixture.

Claim 25 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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The chemicals, or at least one important chemical such as diglyme, which make up the solvent mixture, is critical or essential to the practice of the invention, but not included in this claim.

The claim is thus not enabled by the disclosure. See *in re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). This claim only recites the properties of the solvent mixture, and would thus encompass mixtures which are outside the scope of the present disclosure, and not contemplated by applicants.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 27 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,150,057. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claim recites a cathode of metal oxide bronzes and carbon monofluoride, while the patented claim recites both of these along with metal oxides. The four solvents recited by the present claim are also four of the five listed in the patented claim. Thus, the patented claim is somewhat broader, but encompasses the present subject matter.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 21-26 are rejected under 35 U.S.C. 102(b), or in the alternative, 102(e) as being anticipated by Berberick *et al.* (US 5,154,992).

Berberick *et al.* disclose a battery with an oxide cathode as presently recited (column 3, lines 45-48), a lithium anode (column 3, lines 11-12), an electrolyte salt of lithium (column 4, lines 5-7), a separator (column 3, lines 60-65), and an electrolyte solvent mixture including diglyme and propylene carbonate, where diglyme is preferably present at 30-50 % by weight (column 3, lines 36-39). Since this solvent mixture falls into the numerical range in present claim 24, it would also inherently exhibit the physical properties recited in claim 25. Other solvents such as sulfolane and gamma-butyrolactone are also contemplated (column 4, lines 8-10). As stated above, the present cathode material,  $V_6O_{13}$ , is not supported by the present disclosure, and is thus not entitled to the filing dates of the parent applications. With respect to this material, the claims are thus rejected under §102(b). The other two materials, silver vanadium oxide and  $MnO_2$  are entitled to the earlier filing dates. With respect to these materials, the claims are rejected under §102(e).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berberick *et al.*

This claim encompasses ethylene carbonate, which is not specifically mentioned by Berberick *et al.* The reference teaches, however, that "PC solvent or the like" (where "PC" is an abbreviation for "propylene carbonate") may be used (column 3, line 20). Since ethylene carbonate is conventional in the battery art, and is chemically very similar to propylene carbonate, thus falling within the teaching of "PC solvent or the like", it would be obvious to use ethylene carbonate in the electrolyte solvent for the cells of Berberick *et al.*

Applicant's intention to provoke an interference is noted. However, the present claims are not otherwise in condition for allowance, thus precluding an interference at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is (703) 308-0433. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (703) 308-2383. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

sjk  
July 14, 2002

  
STEPHEN KAFUT  
PRIMARY EXAMINER  
GROUP  
1700